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FIG. 2 is a perspective view showing a closed state of the electronic apparatus shown in FIG. 1;

FIG. 3 is a side view of the electronic apparatus shown in FIG. 1;

FIG. 4 is a view showing an articulated coupling mechanism of the electronic apparatus shown in FIG. 2;

FIG. 5 is an enlarged view of the articulated coupling mechanism shown in FIG. 2;

FIG. 6 is an enlarged view of a gear mechanism of the articulated coupling mechanism;

FIG. 7 is a view for explaining an operation of the articulated coupling mechanism when a display portion is opened and closed;

FIG. 8 is an enlarged view of an interlock mechanism of an articulated coupling mechanism of an electronic apparatus of a second embodiment;

FIG. 9 is a perspective view of an electronic apparatus of a third embodiment;

FIG. 10 is a perspective view showing a closed state of an electronic apparatus of a fourth embodiment;

FIG. 11 is a perspective view showing an open state of an electronic apparatus of a fifth embodiment;

FIG. 12 is a view showing an example of a display screen of the electronic apparatus shown in FIG. 11;

FIG. 13 is a view showing another example of the display screen of the electronic apparatus shown in FIG. 11;

FIG. 14 is a view showing another example of the display screen of the electronic apparatus shown in FIG. 11;

FIG. 15 is a view showing another example of the display screen of the electronic apparatus shown in FIG. 11;

FIG. 16 is a view showing another example of the display screen of the electronic apparatus shown in FIG. 11;

FIG. 17 is a perspective view showing a closed state of an electronic apparatus of a sixth embodiment;

FIG. 18 is a perspective view showing an open state of the electronic apparatus shown in FIG. 17;

FIG. 19 is a view showing an example of a display screen of the electronic apparatus shown in FIG. 18;

FIG. 20 is a view showing an example of the display screen of the electronic apparatus shown in FIG. 18;

FIG. 21 is a view showing an example of the display screen of the electronic apparatus shown in FIG. 18;

FIG. 22 is a view showing an example of the display screen of the electronic apparatus shown in FIG. 18;

FIG. 23 is a view showing an example of the display screen of the electronic apparatus shown in FIG. 18;

FIG. 24 is a view showing an example of the display screen of the electronic apparatus shown in FIG. 18; and

FIG. 25 is a perspective view showing an open state of an electronic apparatus of a seventh embodiment.

DESCRIPTION OF PREFERRED EMBODIMENTS

Hereinafter, embodiments of the present invention will be described with reference to the drawings.

(Structure of Electronic Apparatus)

FIG. 1 is a perspective view showing an open state of an electronic apparatus according to an embodiment of the present invention, and FIG. 2 is a perspective view showing a closed state of the electronic apparatus.

As shown in those figures, an electronic apparatus 1 includes a display portion 2, a main body portion 3, and an articulated coupling mechanism 4 for coupling the display portion 2 and the main body portion 3 to each other. The main body portion 3 includes a frame member 5 that is coupled to the articulated coupling mechanism 4. The display portion 2

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is openable/closable (foldable) with respect to the main body portion 3 via the articulated coupling mechanism 4.

The display portion 2 includes a display including a display screen 6 such as an LCD (Liquid Crystal Display), and a casing 7 for accommodating the display. The display is connected to a system board of the main body portion 3 via a flexible board 8. The casing 7 has a size of 180 mm long and 260 mm wide, for example. A thickness of the display portion 2 is 3 mm, for example. The casing 7 of the display portion 2 is screwed to the articulated coupling mechanism 4 with screws 9 in the vicinity of both ends of the display portion 2 in a width direction (Y direction shown in FIG. 1).

The main body portion 3 includes the system board, an optical disc drive, a hard disk drive, a cooling fan (that are not shown in the figures), a casing 10 for accommodating those built-in components, and a keyboard unit 11.

The system board is mounted with various electronic components such as a CPU (Central Processing Unit), a main memory, a chip set, and various drive control circuits. The optical disc drive is connected to a connector terminal of the system board and performs read and write of information with respect to an optical disc such as a CD, a DVD, and a Blu-ray Disc that is detachable from the optical disc drive. The hard disk drive is connected to a connector terminal of the system board and performs read and write of information with respect to a hard disk included therein. The cooling fan cools the CPU mounted onto the system board or other heat generating devices.

The casing 10 has a length of 260 mm in the width direction (Y direction shown in FIG. 1) and a length of 180 mm in a depth direction (X direction shown in FIG. 1), for example. The casing 10 includes a side wall 12 having a predetermined thickness in a thickness direction of the main body portion 3 (Z direction shown in FIG. 1). A power source terminal 13, an external display output connector 14, a plurality of USB (Universal Serial Bus) connectors 15, a microphone input terminal 16, a headphone output terminal 17, and the like are provided to the side wall 12. For example, the external display output connector 14, the USB connectors 15, the microphone input terminal 16, and the headphone output terminal 17 are provided adjacently to each other, and the power source terminal 13 is provided at an end portion in the X direction of the side wall 12 on a back surface side of the main body portion 3. Though not shown in the figures, a side wall opposite to the side wall 12 is also provided with a plurality of interfaces.

The frame member 5 is a member for coupling the main body portion 3 and the articulated coupling mechanism 4 to each other and is provided to the side wall 12 and the like such that the frame member 5 surrounds the side wall 12 of the main body portion 3. The frame member 5 has an outer shape corresponding to that of the display portion 2 in a plane. A thickness of the frame member 5 (thickness in Z direction shown in FIG. 1) is 5 mm, for example.

The frame member 5 includes a main body portion side coupling portion 5A that is provided at a lower portion on the back surface side of the main body portion 3, and a U-shaped frame portion 5B that is provided along three side walls 12 except the back surface of the main body portion 3.

The main body portion side coupling portion 5A has a size corresponding to a size of the width of the main body portion 3 and is provided over the width direction of the main body portion 3 (Y direction shown in FIG. 1). For example, the main body portion side coupling portion 5A is coupled to the articulated coupling mechanism 4 with screws or the like. The main body portion side coupling portion 5A is provided away from a bottom surface of the main body portion 3 by a predetermined distance. It should be noted that the main body